L13: Entry 17 of 17 . File: USPT Apr 4, 2000

US-PAT-NO: 6047234
DOCUMENT-IDENTIFIER: US 6047234 A

TITLE: System and method for updating, enhancing or refining a geographic database using feedback

DATE-ISSUED: April 4, 2000

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Cherveny; Kevin	Wilmington	IL		
Crane; Aaron	Palatine	IL		
Kaplan; Lawrence M.	Chicago	IL		
Jasper; John	Arlington Hts	IL		
Shields; Russell	Chicago	IL		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Navigation Technologies Corporation	Rosemont	IL			02

APPL-NO: 08/951767 [PALM]
DATE FILED: October 16, 1997

INT-CL-ISSUED: [07] G06F 165/00

INT-CL-CURRENT:

TYPE	IPC	DATE
CIPS	G01 C 21/26	20060101
CIPS	G08 G 1/0969	20060101

US-CL-ISSUED: 701/200; 701/207, 701/208, 701/212, 701/214, 340/988, 340/990
US-CL-CURRENT: 701/200; 340/988, 340/990, 701/207, 701/208, 701/212, 701/214

FIELD-OF-CLASSIFICATION-SEARCH: 701/200, 701/207, 701/208, 701/212, 701/214, 701/213, 340/988, 340/990, 340/995
See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	4982332	January 1991	Saito et al.	364/449
☐	5146219	September 1992	Zechnall	
☐	5243528	September 1993	Lefebvre	701/207
☐	5315295	May 1994	Fujii	
☐	5731978	March 1998	Tamai et al.	701/201
☐	5828585	October 1998	Welk et al.	701/213
☐	5933100	August 1999	Golding	

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	CLASS
19525291 C1	December 1996	DE	

ART-UNIT: 361

PRIMARY-EXAMINER: Cuchlinski, Jr.; William A.

ASSISTANT-EXAMINER: Arthur; Gertrude

ATTY-AGENT-FIRM: Kozak; Frank J. Kaplan; Lawrence M.

ABSTRACT:

A system for updating, enhancing and/or refining a geographic database. A geographic database includes data representing physical features in the geographic region, and, optionally, attributes of such features. The system includes a plurality of data collecting sensors. Each of the data collecting sensors is installed in a separate one of a plurality of vehicles each of which is capable of traveling on roads in a geographic region. Each of the data collecting sensors provides outputs indicative of one or more features in the geographic region as the vehicle in which it is installed travels on the roads in the geographic region. A computer program executes a feedback process on the geographic database using the outputs of the data collecting sensors. A first part of the feedback program compares the outputs of the data collecting sensors to the data identifying the physical features and provides results representative of the comparisons. A second part of the feedback program is responsive to the results from the first part and determines the significance of the comparisons. A third part of the feedback program modifies the data in the geographic database based upon the significance determined by the second part of the program. The data in the geographic database representing physical features in the geographic region are updated, enhanced, or refined based upon the significance determined by the feedback program. The data which has been updated, enhanced, or refined, is used to provide updated, enhanced, or refined data in end-user vehicles, some of which may include the vehicles in which data collecting sensors have been installed. Sensors in end-users' vehicles are calibrated to high levels of accuracy using the data which has been updated, enhanced or refined using a feedback process. Further, an out-of-calibration sensor in an end-user's vehicle is detected and re-calibrated using the data which has been updated, enhanced or refined using a feedback process. Using a feedback process, levels of confidence are assigned to data in the geographic database

representing physical features in the geographic region, thereby enabling the data to be used for purposes requiring high levels of confidence.

34 Claims, 41 Drawing figures

Previous Doc Next Doc Go to Doc#

L13: Entry 15 of 17 File: USPT Jul 27, 2004

US-PAT-NO: 6768944
DOCUMENT-IDENTIFIER: US 6768944 B2

TITLE: Method and system for controlling a vehicle

DATE-ISSUED: July 27, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Breed; David S.	Boonton Township, Morris County	NJ		
Johnson; Wendell C.	Signal Hill	CA		
DuVall; Wilbur E.	Kimberling City	MO		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Intelligent Technologies International, Inc.	Denville	NJ			02

APPL-NO: 10/216633 [PALM]
DATE FILED: August 9, 2002

PARENT-CASE:
CROSS REFERENCE TO RELATED APPLICATIONS This application is a continuation in part of U.S. patent application Ser. No. 10/118,858 filed Apr. 9, 2002. This application is related to, on the grounds that it includes common subject matter, U.S. patent application Ser. No. 09/177,041 filed Oct. 22, 1998, now U.S. Pat. No. 6,370,475, U.S. patent application Ser. No. 09/679,317 filed Oct. 4, 2000, now U.S. Pat. No. 6,405,132, and U.S. patent application Ser. No. 09/909,466 filed Jul. 19, 2001. Both of these patents are incorporated by reference herein.

INT-CL-ISSUED: [07] G01C 23/00, G06F 19/00

INT-CL-CURRENT:

TYPE	IPC	DATE
CIPS	G01 C 23/00	20060101
CIPS	G06 F 19/00	20060101

US-CL-ISSUED: 701/301; 213/36
US-CL-CURRENT: 701/301; 213/36

FIELD-OF-CLASSIFICATION-SEARCH: 701/301, 701/208, 701/211, 701/36, 701/213, 701/216, 701/220, 342/357.06, 342/357.09, 342/357.14, 348/118
See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected | Search ALL | Clear

	PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL
☐	3702477	November 1972	Brown	342/451
☐	5177685	January 1993	Davis et al.	364/443
☐	5332180	July 1994	Peterson et al.	246/3
☐	5381338	January 1995	Wysocki et al.	364/449
☐	5504482	April 1996	Schreder	340/995
☐	5570087	October 1996	Lemelson	340/870.05
☐	5617317	April 1997	Ignagni	701/215
☐	5760737	June 1998	Brenner	342/357.02
☐	5841367	November 1998	Giovanni	340/903
☐	5890083	March 1999	Franke et al.	701/45
☐	5926117	July 1999	Gunji et al.	340/988
☐	5983161	November 1999	Lemelson et al.	701/301
☐	6014608	January 2000	Seo	701/207
☐	6311129	October 2001	Lin	701/214
☐	6370475	April 2002	Breed et al.	701/301
☐	6405132	June 2002	Breed et al.	701/301
☐	6453238	September 2002	Brodie et al.	701/216
☐	6459990	October 2002	McCall et al.	701/220
☐	6516273	February 2003	Pierowicz et al.	701/301
☐	6560535	May 2003	Hohman et al.	701/213
☐	2003/0025597	February 2003	Schofield	340/435
☐	2003/0112132	June 2003	Trajkovic et al.	340/435

FOREIGN PATENT DOCUMENTS

FOREIGN-PAT-NO	PUBN-DATE	COUNTRY	CLASS
0150088	July 2001	WO	

OTHER PUBLICATIONS

SRI International, Centimeter-Level GPS for Highway Systems, J.W. Sinko et al., Jul., 1998.
SRI International, An Evolutionary Automated Highway System Concept Based on GPS, J.W. Sinko, Sep., 1996 (p. 5, second column to p. 7).
SRI International, Using GPS for Automated Vehicle Convoying, T.M. Nguyen, Sep. 1998.
V. Morellas et al., Preview Based Control of a Tractor Trailer Using DGPS for

Preventing Road Departure Accidents, 1998 IEEE International Conference on Intelligent Vehicles, pp. 797-805.
S. Bajikar et al., Evaluation of In-Vehicle GPS-Based Lane Position Sensing for Preventing Road Departure, 1998 IEEE International Conference on Intelligent Vehicle, pp. 397-402.
B. Schiller et al., Collision Avoidance for Highway Vehicles Using the Virtual Bumper Controller, 1998 IEEE International Conference on Intelligent Vehicles, pp. 149-155.
M. O'Shea and V. Shuman, Looking Ahead: Map Database in Predictive Positioning and Safety Systems, no Date.
J. Pierowicz, Use of Map Data Information in an On-Board Intersection Violation Detection System, 1998 IEEE.
Goran M. Djuknic and Robert E. Richton, Geolocation and Assisted GPS, Feb. 2001.
H. Weinberg, MEMS Sensors Are Driving the Automotive Industry, Sensors, Feb. 2002.
R. Grace, The Growing Presence of MEMS and MST in Automotive Applications, Sensors, Sep. 1999.
D. Singh et al., Autonomous Vehicle Using WADGPS, Proceedings of Intelligent Vehicles '95 Symposium, Sep. 25-26, 1995, pp. 370-375.

ART-UNIT: 3661

PRIMARY-EXAMINER: Zanelli; Michael J.

ATTY-AGENT-FIRM: Roffe; Brian

ABSTRACT:

Control system and method for controlling a vehicle or a component of a vehicle in which an inertial reference unit includes accelerometers and gyroscopes which provide data on vehicle motion and a processor processes the data and controls the vehicle or the component of the vehicle based thereon. Movement of the vehicle may be controlled via control over servos, such as a servo associated with the braking system, a servo associated with the drive train or throttle and a servo associated with the steering system. A display to the driver can also be controlled by the processor to provide data on vehicle motion or data or information derived from the data on vehicle motion. Optionally, a Kalman filter is coupled to the processor for optimizing the data on vehicle motion from the inertial reference unit.

37 Claims, 25 Drawing figures

Previous Doc Next Doc Go to Doc#

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Term: 10/648067

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L21	L19 and ((data$ with string$) and(trust$ or confiden$ or reliab$))	2	L21
L20	L19 and ((data$ with string$) same (trust$ or confiden$ or reliab$))	0	L20
L19	l14 or l17 or l18	159	L19
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L12	(freshness$ with (information or data)) and database and reliab$ and (data with (location$ or position$ or address$)) and navigat$	69	L12
L11	(freshness$ with (information or data)) and (data near2 string$) and database and reliab$ and (data with (location$ or position$ or address$)) and navigat$	0	L11
L10	L9 and navigat$	0	L10
L9	l7 or L8	3	L9
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L6	L5 and gps	8	L6
L5	L4 and vehicle	18	L5
L4	L3 and map$	20	L4
L3	L2 and database	24	L3
L2	L1 and navigation	43	L2
L1	(freshness adj (information or data)) and @ad<=20020826	166	L1

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Search Results - Record(s) 1 through 2 of 2 returned.

☐ 1. Document ID: US 7072764 B2

L21: Entry 1 of 2 File: USPT Jul 4, 2006

US-PAT-NO: 7072764
DOCUMENT-IDENTIFIER: US 7072764 B2

TITLE: Real time high accuracy geospatial database for onboard intelligent vehicle applications

PRIOR-PUBLICATION:

DOC-ID	DATE
US 20020184236 A1	December 5, 2002

Full | Title | Citation | Front | Review | Classification | Date | Reference | ... | Claims | KWIC | Draw D...

☐ 2. Document ID: US 5177685 A

L21: Entry 2 of 2 File: USPT Jan 5, 1993

US-PAT-NO: 5177685
DOCUMENT-IDENTIFIER: US 5177685 A
**** See image for Certificate of Correction ****

TITLE: Automobile navigation system using real time spoken driving instructions

Full | Title | Citation | Front | Review | Classification | Date | Reference | ... | Claims | KWIC | Draw D...

Clear | Generate Collection | Print | Fwd Refs | Bkwd Refs | Generate OACS

Terms	Documents
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L21: Entry 2 of 2 File: USPT Jan 5, 1993

US-PAT-NO: 5177685
DOCUMENT-IDENTIFIER: US 5177685 A
**** See image for Certificate of Correction ****

TITLE: Automobile navigation system using real time spoken driving instructions

DATE-ISSUED: January 5, 1993

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Davis; James R.	North Cambridge	MA		
Schmandt; Christopher M.	Milton	MA		

ASSIGNEE-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY	TYPE CODE
Massachusetts Institute of Technology	Cambridge	MA			02

APPL-NO: 07/565274 [PALM]
DATE FILED: August 9, 1990

INT-CL-ISSUED: [05] G01C 21/00

INT-CL-CURRENT:

TYPE	IPC	DATE
CIPS	B60 R 16/02	20060101
CIPS	G01 C 21/34	20060101
CIPS	G01 C 21/36	20060101

US-CL-ISSUED: 364/443; 340/988, 364/449, 364/453
US-CL-CURRENT: 455/456.5; 340/988, 701/209, 701/211, 701/220

FIELD-OF-CLASSIFICATION-SEARCH: 340/988, 340/989, 340/990, 340/995, 364/443, 364/444, 364/449, 364/450, 364/453, 364/436
See application file for complete search history.

PRIOR-ART-DISCLOSED:

U.S. PATENT DOCUMENTS

Search Selected Search ALL Clear

PAT-NO	ISSUE-DATE	PATENTEE-NAME	US-CL

☐	4139889	February 1979	Ingels	340/989 X
☐	4697281	September 1987	O'Sullivan	455/33 X
☐	4734863	March 1988	Honey et al.	340/988 X
☐	4796191	January 1989	Honey et al.	364/450
☐	4812843	March 1989	Champion, III et al.	340/989 X
☐	4882696	November 1989	Nimura et al.	
☐	4891761	January 1990	Gray et al.	364/449 X
☐	4926336	May 1990	Yamada	364/444
☐	4937751	June 1990	Nimura et al.	364/444 X
☐	4939662	July 1990	Nimura et al.	340/990 X
☐	4951211	August 1990	De Villeroche	364/444
☐	4954958	September 1990	Savage et al.	364/444
☐	4984168	January 1991	Neukrichner et al.	364/449
☐	4992947	February 1991	Nimura et al.	364/444
☐	5021961	June 1991	Ross et al.	340/990 X
☐	5041983	August 1991	Nakahara et al.	364/449
☐	5043902	August 1991	Yokoyama et al.	364/449

OTHER PUBLICATIONS

"Synthetic Speech for Real Time Direction-Giving", C. M. Schmandt et al., Digest of Technical Papers, International Conference on Consumer Electronics, Rosemont, Ill., Jun. 6-9, 1989.
"Synthetic Speech for Real Time Direction Giving", C. M. Schmandt et al., IEEE Transactions on Consumer Electronics, 35(3):649-653, Aug. 1989.
"The Back Seat Driver: Real Time Spoken Driving Instructions", J. R. Davis et al., Proceedings of the IEEE Vehicle Navigation and Information Systems Conference, Toronto, Canada, Sep. 1989.
"Back Seat Driver: Voice Assisted Automobile Navigation", by J. R. Davis, Ph.D. Thesis, Massachusetts Institute of Technology, Sep., 1989.
"CD-ROM Assisted Navigation Systems", by O. Ono et al., Digest of Technical Papers, IEEE International Conference on Consumer Electronics, Rosemont, Ill., Jun. 8-10, 1988.
"Attention, Intentions, and the Structure of Discourse", by B. J. Grosz and C. L. Sidner (Computational Linguistics, 12(3):175-204, 1986.
"The Intonational Structuring of Discourse", by J. Hirschberg et al., Proceedings of the Association for Computational Linguistics, 136-144, Jul. 1986.
Automobile Electronic News, vol. 1, No. 16., "U.K. Picks GEC to Head Navigation Project", by James Fallon, Aug. 28, 1989.
"Softening of the Arteries", by Bruce Weber, The New York Times Magazine, p. 78, Aug. 26, 1990.
"Terminal Back Seat Driver", Technology Review, Jul., 1990, p. 10.
"Taxi! Dynamic Cartographic Software for Training Cab Drivers", by M. Bosworth et al., Technical Report, Hunter College Department of Geology and Geography, (212)-772-4000, 1988 paper presented at the Annual Meeting of the Association of American Geographers.
"Digital Map Dependent Functions of Automatic Vehicle Location Systems", by C. B. Harris et al., IEEE Position and Location Symposium, pp. 79-87, 1988, IEEE CH2675-7.

"Digital Maps on Compact Discs", by H. J. G. M. Benning, Technical Paper Series 860125, Society of Automobile Engineers, 1986.
"Eva: An Electronic Traffic Pilot for Motorists", by O. Pilsak, Technical Papers Series 860346, Society of Automotive Engineers, 1986.
"Digital Map Data Bases for Autonomous Vehicle Navigation Systems", by E. P. Neukirchner et al., IEEE Position and Location Symposium, pp. 320-324, 1986, IEEE 86CH2365-5.
"Applications of the Compact Disc in Car Information and Navigation Systems", by M. L. G. Thoone et al., Technical Papers Series 840156, Society of Automotive Engineers, 1984.
"On Board Computer System for Navigation, Orientation, and Route Optimization", by P. Haeussermann, Technical Paper Series 840483, Society of Automotive Engineers, 1984.
"Electro Gryo-Cator: New Inertial Navigation System for Use in Automobiles", by K. Tagami et al., Technical Paper Series 830659, Soc. of Automotive Engineers, 1983.
"Navigation Systems Using gps for Vehicles", by T. Itoh, et al., Technical Paper Series 861360, Society of Automotive Engineers, 1986.
"Extending Low Cost Land Navigation Into Systems Information Distribution and Control", by S. K. Honey et al., IEEE Position and Locations Symposium, pp. 439-444, 1986, IEEE 86CH2365-5.
"Map Matching Augmented Dead Reckoning", by W. B. Zavoli et al., Proceedings of the 35th IEEE Vehicular Technology Conference, pp. 359-444, 1986, IEEE CH2308-5.
"Automated Provision of Navigation Assistance to Drivers", by Matthew McGranaghan et al., The American cartographer 14(2):121-138, 1987.

ART-UNIT: 234

PRIMARY-EXAMINER: Lall; Parshotam S.

ASSISTANT-EXAMINER: Pipala; Edward

ATTY-AGENT-FIRM: Choate, Hall & Stewart

ABSTRACT:

An automobile navigation system which provides spoken instructions to the driver of an automobile to guide the driver along a route is disclosed. The heart of the system is a computing apparatus comprising a map database, route finding algorithms, a vehicle location system, discourse generating programs, and speech generating programs. Driver input means allows the driver to enter information such as a desired destination. The route finding algorithms in the computer apparatus calculate a route to the destination. The vehicle location system accepts input from a position sensor which measures automobile movement (magnitude and direction) continuously, and using this data in conjunction with the map database, determines the position of the automobile. Based on the current position of the automobile and the route, the discourse generating programs compose driving instructions and other messages according to a discourse model in real time as they are needed. The instructions and messages are sent to voice generating apparatus which conveys them to the driver.

58 Claims, 5 Drawing figures

Previous Doc Next Doc Go to Doc#

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☐ 1. Document ID: US 20070021915 A1

L13: Entry 1 of 17 File: PGPB Jan 25, 2007

PGPUB-DOCUMENT-NUMBER: 20070021915
PGPUB-FILING-TYPE:
DOCUMENT-IDENTIFIER: US 20070021915 A1

TITLE: Collision Avoidance Methods and Systems

PUBLICATION-DATE: January 25, 2007

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Breed; David S.	Boonton Township	NJ	US
DuVall; Wilbur E.	Reeds Spring	MO	US
Johnson; Wendell C.	Kaneohe	HI	US
Lukin; Kostyantyn Alexandrovich	Kharkov		UA

US-CL-CURRENT: 701/301

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 2. Document ID: US 20060206256 A1

L13: Entry 2 of 17 File: PGPB Sep 14, 2006

PGPUB-DOCUMENT-NUMBER: 20060206256
PGPUB-FILING-TYPE:
DOCUMENT-IDENTIFIER: US 20060206256 A1

TITLE: Traffic information system

PUBLICATION-DATE: September 14, 2006

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Kumagai; Masatoshi	Hitachi		JP
Fushiki; Takumi	Paris		FR
Yokota; Takayoshi	Hitachioota		JP
Kimita; Kazuya	Hitachi		JP

US-CL-CURRENT: 701/117; 340/934

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 3. Document ID: US 20050149259 A1

L13: Entry 3 of 17 File: PGPB Jul 7, 2005

PGPUB-DOCUMENT-NUMBER: 20050149259
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20050149259 A1

TITLE: System and method for updating, enhancing, or refining a geographic database using feedback

PUBLICATION-DATE: July 7, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Cherveny, Kevin	Wilmington	IL	US
Crane, Aaron	Palatine	IL	US
Kaplan, Lawrence M.	Chicago	IL	US
Jasper, John	Arlington Hts.	IL	US
Shields, Russell	Chicago	IL	US

US-CL-CURRENT: 701/208; 340/995.14, 701/200, 701/201

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 4. Document ID: US 20050137786 A1

L13: Entry 4 of 17 File: PGPB Jun 23, 2005

PGPUB-DOCUMENT-NUMBER: 20050137786
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20050137786 A1

TITLE: Communication method and arrangement

PUBLICATION-DATE: June 23, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Breed, David S.	Boonton Township	NJ	US
DuVall, Wilbur E.	Kimberling City	MO	US
Johnson, Wendell C.	Kaneohe	HI	US
Lukin, Kostyantyn Alexandrovich	Kharkov		UA
Konovalov, Vladymyr Michailovich	Kharkov		UA

US-CL-CURRENT: 701/200

☐ 5. Document ID: US 20050134440 A1

L13: Entry 5 of 17 File: PGPB Jun 23, 2005

PGPUB-DOCUMENT-NUMBER: 20050134440
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20050134440 A1

TITLE: Method and system for detecting objects external to a vehicle

PUBLICATION-DATE: June 23, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Breed, David S.	Boonton Township	NJ	US

US-CL-CURRENT: 340/435; 342/70, 701/45

☐ 6. Document ID: US 20050093720 A1

L13: Entry 6 of 17 File: PGPB May 5, 2005

PGPUB-DOCUMENT-NUMBER: 20050093720
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20050093720 A1

TITLE: Traffic information providing system and car navigation system

PUBLICATION-DATE: May 5, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Yamane, Kenichiro	Hitachi		JP
Fujiwara, Junsuke	Hitachi		JP
Endo, Yoshinori	Mito		JP
Machii, Kimiyoshi	Hitachi		JP
Kumagai, Masatoshi	Hitachi		JP
Yokota, Takayoshi	Hitachiota		JP
Matsuo, Shigeru	Hitachinaka		JP

US-CL-CURRENT: 340/995.13; 701/117

☐ 7. Document ID: US 20050060069 A1

L13: Entry 7 of 17 File: PGPB Mar 17, 2005

PGPUB-DOCUMENT-NUMBER: 20050060069
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20050060069 A1

TITLE: Method and system for controlling a vehicle

PUBLICATION-DATE: March 17, 2005

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Breed, David S.	Boonton Township	NJ	US
DuVall, Wilbur E.	Kimberling City	MO	US
Johnson, Wendell C.	Kaneohe	HI	US

US-CL-CURRENT: 701/29; 701/200

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 8. Document ID: US 20040088110 A1

L13: Entry 8 of 17 File: PGPB May 6, 2004

PGPUB-DOCUMENT-NUMBER: 20040088110
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20040088110 A1

TITLE: Method and apparatus for displaying navigation information

PUBLICATION-DATE: May 6, 2004

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Suzuki, Keizo	Yokohama-city		JP

US-CL-CURRENT: 701/211; 340/995.14, 701/200

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 9. Document ID: US 20030191568 A1

L13: Entry 9 of 17 File: PGPB Oct 9, 2003

PGPUB-DOCUMENT-NUMBER: 20030191568
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030191568 A1

TITLE: Method and system for controlling a vehicle

PUBLICATION-DATE: October 9, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Breed, David S.	Boonton Township	NJ	US

US-CL-CURRENT: 701/36; 340/438, 701/213

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 10. Document ID: US 20030125871 A1

L13: Entry 10 of 17 File: PGPB Jul 3, 2003

PGPUB-DOCUMENT-NUMBER: 20030125871
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20030125871 A1

TITLE: System and method for updating, enhancing, or refining a geographic database using feedback

PUBLICATION-DATE: July 3, 2003

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Cherveny, Kevin	Wilmington	IL	US
Crane, Aaron	Palatine	IL	US
Kaplan, Lawrence M.	Chicago	IL	US
Jasper, John	Arlington Hts.	IL	US
Shields, T. Russell	Chicago	IL	US

US-CL-CURRENT: 701/208

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

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Terms	Documents
L12 and 701/$.ccls.	17

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Previous Page Next Page Go to Doc#

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Search Results - Record(s) 11 through 17 of 17 returned.

☐ 11. Document ID: US 20020198632 A1

L13: Entry 11 of 17 File: PGPB Dec 26, 2002

PGPUB-DOCUMENT-NUMBER: 20020198632
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020198632 A1

TITLE: Method and arrangement for communicating between vehicles

PUBLICATION-DATE: December 26, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY
Breed, David S.	Boonton Township	NJ	US
DuVall, Wilbur E.	Kimberling City	MO	US
Johnson, Wendell C.	Signal Hill	CA	US
Lukin, Kostyantyn Alexandrovich	Kharkov		UA
Konovalov, Vladymyr Michailovich	Kharkov		UA

US-CL-CURRENT: 701/1; 701/213

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw D

☐ 12. Document ID: US 7110880 B2

L13: Entry 12 of 17 File: USPT Sep 19, 2006

US-PAT-NO: 7110880
DOCUMENT-IDENTIFIER: US 7110880 B2

TITLE: Communication method and arrangement

PRIOR-PUBLICATION:

DOC-ID	DATE
US 20050137786 A1	June 23, 2005

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw D

☐ 13. Document ID: US 7085637 B2

L13: Entry 13 of 17 File: USPT Aug 1, 2006

US-PAT-NO: 7085637
DOCUMENT-IDENTIFIER: US 7085637 B2

TITLE: Method and system for controlling a vehicle

PRIOR-PUBLICATION:

DOC-ID	DATE
US 20050060069 A1	March 17, 2005

☐ 14. Document ID: US 6853913 B2

L13: Entry 14 of 17 File: USPT Feb 8, 2005

US-PAT-NO: 6853913
DOCUMENT-IDENTIFIER: US 6853913 B2

TITLE: System and method for updating, enhancing, or refining a geographic database using feedback

☐ 15. Document ID: US 6768944 B2

L13: Entry 15 of 17 File: USPT Jul 27, 2004

US-PAT-NO: 6768944
DOCUMENT-IDENTIFIER: US 6768944 B2

TITLE: Method and system for controlling a vehicle

☐ 16. Document ID: US 6516267 B1

L13: Entry 16 of 17 File: USPT Feb 4, 2003

US-PAT-NO: 6516267
DOCUMENT-IDENTIFIER: US 6516267 B1

TITLE: System and method for updating, enhancing or refining a geographic database using feedback

☐ 17. Document ID: US 6047234 A

L13: Entry 17 of 17 File: USPT Apr 4, 2000

US-PAT-NO: 6047234
DOCUMENT-IDENTIFIER: US 6047234 A

TITLE: System and method for updating, enhancing or refining a geographic database using feedback

Full | Title | Citation | Front | Review | Classification | Date | Reference | Claims | KWIC | Draw D

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Terms	Documents
L12 and 701/$.ccls.	17

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Previous Page Next Page Go to Doc#